

# **EXHIBIT D**

**PATENT ASSIGNMENT COVER SHEET**Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT6651469

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
MAXLINEAR COMMUNICATIONS LLC		03/31/2021
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	ENTROPIC COMMUNICATIONS, LLC	
<b>Street Address:</b>	1345 AVENUE OF THE AMERICAS	
<b>Internal Address:</b>	46TH FLOOR	
<b>City:</b>	NEW YORK	
<b>State/Country:</b>	NEW YORK	
<b>Postal Code:</b>	10105	
<b>PROPERTY NUMBERS Total: 204</b>		
<b>Property Type</b>	<b>Number</b>	
Application Number:	09910412	
Application Number:	10215609	
Application Number:	10386094	
Application Number:	12538339	
Application Number:	10322834	
Application Number:	11938283	
Application Number:	11938770	
Application Number:	13090907	
Application Number:	15860400	
Application Number:	10889975	
Application Number:	13027030	
Application Number:	14082544	
Application Number:	14829036	
Application Number:	09965242	
Application Number:	09904432	
Application Number:	12558781	
Application Number:	10071771	
Application Number:	10167158	
Application Number:	10310255	

**PATENT**

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**REEL: 055899 FRAME: 0291**

Property Type	Number
Application Number:	09443054
Application Number:	10003062
Application Number:	10735521
Application Number:	10735523
Application Number:	10734603
Application Number:	10734604
Application Number:	11618922
Application Number:	12477339
Application Number:	14882937
Application Number:	11164768
Application Number:	11537628
Application Number:	11538627
Application Number:	10675566
Application Number:	10289011
Application Number:	11553456
Application Number:	15830072
Application Number:	16595527
Application Number:	16883504
Application Number:	12015773
Application Number:	12016998
Application Number:	13334975
Application Number:	12015760
Application Number:	14451359
Application Number:	14978049
Application Number:	12015774
Application Number:	13220530
Application Number:	12027216
Application Number:	15832390
Application Number:	12027228
Application Number:	12027202
Application Number:	16681244
Application Number:	12031496
Application Number:	15275180
Application Number:	15975946
Application Number:	12895312
Application Number:	13556040
Application Number:	12117890
Application Number:	11027952

Property Type	Number
Application Number:	12245498
Application Number:	13735957
Application Number:	11027999
Application Number:	12473656
Application Number:	13032580
Application Number:	11229297
Application Number:	14081512
Application Number:	15156389
Application Number:	16004477
Application Number:	12245535
Application Number:	12414892
Application Number:	12557288
Application Number:	13466582
Application Number:	12241629
Application Number:	12579312
Application Number:	12580127
Application Number:	12580227
Application Number:	12581063
Application Number:	10734535
Application Number:	12635649
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Application Number:	14158484
Application Number:	14960498
Application Number:	12686645
Application Number:	15904911
Application Number:	12820382
Application Number:	14188328
Application Number:	15083816
Application Number:	12688535
Application Number:	12688559
Application Number:	15808431
Application Number:	12688518
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Property Type	Number
Application Number:	12833827
Application Number:	15632826
Application Number:	16693852
Application Number:	13402014
Application Number:	14165005
Application Number:	14510971
Application Number:	14877598
Application Number:	11763359
Application Number:	12955642
Application Number:	13013795
Application Number:	13041662
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Application Number:	13335735
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Application Number:	16109396
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Application Number:	12822676
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Application Number:	14962637
Application Number:	14334443
Application Number:	13355413
Application Number:	13397443
Application Number:	13213370
Application Number:	13584541
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Property Type	Number
Application Number:	14933821
Application Number:	13403144
Application Number:	15881000
Application Number:	16237410
Application Number:	14383623
Application Number:	15717550
Application Number:	16188962
Application Number:	14394800
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Application Number:	13471613
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Application Number:	15030751
Application Number:	15037931
Application Number:	16735995
Application Number:	15832997
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Application Number:	14302152
Application Number:	16695234
Application Number:	15598349
Application Number:	14177707
Application Number:	15001718
Application Number:	15974783
Application Number:	12165528
PCT Number:	US2002022339
PCT Number:	IB2002004352
PCT Number:	US2003039741
PCT Number:	US2003039677
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PCT Number:	US2008051290
PCT Number:	US2008051285
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PCT Number:	US2008053202
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PCT Number:	US2010050948

Property Type	Number
PCT Number:	US2008063231
PCT Number:	IB2008054071
PCT Number:	IB2009051427
PCT Number:	US2009044404
PCT Number:	US2009056587
PCT Number:	US2009058938
PCT Number:	US2009060952
PCT Number:	US2009060995
PCT Number:	US2009067586
PCT Number:	US2009067452
PCT Number:	US2011040838
PCT Number:	US2010021223
PCT Number:	US2010021253
PCT Number:	US2010021266
PCT Number:	US2010027431
PCT Number:	US2010058209
PCT Number:	US2011022512
PCT Number:	US2011040844
PCT Number:	US2012022109
PCT Number:	US2012025268
PCT Number:	US2012037023
PCT Number:	US2012050636
PCT Number:	US2012068931
PCT Number:	US2013027082
PCT Number:	US2013029923
PCT Number:	US2013036724
PCT Number:	US2013041251
PCT Number:	US2014023639
PCT Number:	US2014066654
PCT Number:	US2014066661
PCT Number:	US2014066666
PCT Number:	US2009044123
PCT Number:	US2010024837

**CORRESPONDENCE DATA**

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Phone: 704-331-1000

**PATENT****REEL: 055899 FRAME: 0296**

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**Address Line 4:** CHARLOTTE, NORTH CAROLINA 28202

<b>ATTORNEY DOCKET NUMBER:</b>	045057-000044
<b>NAME OF SUBMITTER:</b>	JAMES VAN CLEAVE GAMBRELL
<b>SIGNATURE:</b>	/James Van Cleave Gambrell/
<b>DATE SIGNED:</b>	04/12/2021

**Total Attachments: 34**

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**EXECUTION VERSION****ASSIGNMENT OF PATENT RIGHTS BY MAXLINEAR COMMUNICATIONS LLC**

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, MaxLinear Communications LLC, a Delaware limited liability company, with an office at 5966 La Place Court, Suite 100, Carlsbad, CA 92008 ("**Assignor**"), does hereby sell, assign, transfer, and convey unto Entropic Communications, LLC, a Delaware limited liability company, with an address at 1345 Avenue of the Americas, 46th Floor, New York, NY 10105 ("**Assignee**"), or its designees, all right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "**Patent Rights**"), free and clear of all liens, claims and encumbrances other than those Assignee has expressly agreed in writing will continue to encumber the Patent Rights after execution and delivery of this Assignment of Patent Rights:

(a) the provisional patent applications, patent applications and patents listed in the table below (the "**Patents**");

<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
US09/910412	US7594249	US	2001-07-21	NETWORK INTERFACE DEVICE AND BROADBAND LOCAL AREA NETWORK USING COAXIAL CABLE
US10/215609	US7428238	US	2002-08-09	BROADBAND NETWORK BRIDGING VARIOUS WIRING CHANNELS
US10/386094	US7154957	US	2003-03-10	POWER SPECTRUM SHAPING TO REDUCE INTERFERENCE EFFECTS IN DEVICES SHARING A COMMUNICATION MEDIUM
US12/538339	US20090296611	US	2009-08-10	BROADBAND NETWORK FOR COAXIAL CABLE USING MULTI-CARRIER MODULATION
US10/322834	US7295518	US	2002-12-18	BROADBAND NETWORK FOR COAXIAL CABLE USING MULTI-CARRIER MODULATION
US11/938283	US7499397	US	2007-11-11	BROADBAND NETWORK FOR COAXIAL CABLE USING MULTI-CARRIER MODULATION
US11/938770	US7573822	US	2007-11-12	BROADBAND NETWORK FOR COAXIAL CABLE USING MULTI-CARRIER MODULATION
US13/090907	US8411565	US	2011-04-20	BROADBAND NETWORK FOR COAXIAL CABLE USING MULTI-CARRIER MODULATION

CONFIDENTIAL

**PATENT****REEL: 055899 FRAME: 0298**

**EXECUTION VERSION**

<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
US15/860400	US20180131588	US	2018-01-02	BROADBAND CABLE NETWORK UTILIZING COMMON BIT-LOADING
US10/889975	US7889759	US	2004-07-12	BROADBAND CABLE NETWORK UTILIZING COMMON BIT-LOADING
US13/027030	US8588250	US	2011-02-14	BROADBAND CABLE NETWORK UTILIZING COMMON BIT-LOADING
US14/082544	US9112803	US	2013-11-18	BROADBAND CABLE NETWORK UTILIZING COMMON BIT-LOADING
US14/829036	US9860144	US	2015-08-18	BROADBAND CABLE NETWORK UTILIZING COMMON BIT-LOADING
US09/965242	US7590168	US	2001-09-26	LOW COMPLEXITY HIGH-SPEED COMMUNICATIONS TRANSCEIVER
AU2002318330A	AU2002318330	AU	2002-07-08	MULTI-CHANNEL COMMUNICATIONS TRANSRECEIVER
US09/904432	US7295623	US	2001-07-11	HIGH-SPEED COMMUNICATIONS TRANSCEIVER
US12/558781	US8787430	US	2009-09-14	LOW COMPLEXITY HIGH-SPEED COMMUNICATIONS TRANSCEIVER
US10/071771	US7236757	US	2002-02-06	HIGH-SPEED MULTI-CHANNEL COMMUNICATIONS TRANSCEIVER WITH INTER-CHANNEL INTERFERENCE FILTER
US10/167158	US20030112896	US	2002-06-10	MULTI-CHANNEL COMMUNICATIONS TRANSCEIVER
EP02748158A	EP1407572	EP	2002-07-08	MULTI-CHANNEL COMMUNICATIONS TRANSCEIVER
US10/310255	US7403752	US	2002-12-04	MULTI-CHANNEL COMMUNICATIONS TRANSCEIVER
CN02817774A	CN1596520	CN	2002-07-08	MULTI-CHANNEL COMMUNICATIONS TRANSCEIVER
TW91115102A	TWI238628	TW	2002-07-08	MULTI-CHANNEL COMMUNICATIONS TRANSCEIVER AND METHOD

**EXECUTION VERSION**

<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
US0222339W	WO03007564	WO	2002-07-08	MULTI-CHANNEL COMMUNICATIONS TRANSRECEIVER
US09/443054	US6552738	US	1999-11-18	USER INTERFACE FOR CONTROL OF A DISPLAY DEVICE
EP02775131A	EP1444834	EP	2002-10-18	APPARATUS AND METHOD FOR MULTIMEDIA PROCESSING
IB0204352W	WO03039160	WO	2002-10-18	APPARATUS AND METHOD FOR MULTIMEDIA PROCESSING
CN02821816A	CN1272966	CN	2002-10-18	APPARATUS AND METHOD FOR MULTIMEDIA PROCESSING
JP2003541278A	JP4216191	JP	2002-10-18	MULTIMEDIA PROCESSING APPARATUS AND METHOD
KR20047006432A	KR100919370	KR	2002-10-18	APPARATUS AND METHOD FOR MULTIMEDIA PROCESSING
US10/003062	US7116712	US	2001-11-02	APPARATUS AND METHOD FOR PARALLEL MULTIMEDIA PROCESSING
US10/735521	US20040209584	US	2003-12-11	INTEGRATED CROSSPOINT SWITCH WITH BAND TRANSLATION
US10/735523	US20040209588	US	2003-12-11	MIXER CIRCUIT WITH BYPASS AND MIXING MODES HAVING CONSTANT EVEN ORDER GENERATION AND METHOD OF OPERATION
US10/734603	US20040214537	US	2003-12-11	SIGNAL DISTRIBUTION SYSTEM CASCADABLE AGC DEVICE AND METHOD
US10/734604	US20050005296	US	2003-12-11	NXM CROSSPOINT SWITCH WITH BAND TRANSLATION
EP03812996A	EP1576751	EP	2003-12-11	SIGNAL DISTRIBUTION SYSTEM CASCADABLE AGC DEVICE AND METHOD

**EXECUTION VERSION**

<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
US0339741W	WO2004054128	WO	2003-12-11	INTEGRATED CROSSPOINT SWITCH WITH BAND TRANSLATION
US0339677W	WO2004054145	WO	2003-12-11	SIGNAL DISTRIBUTION SYSTEM CASCADABLE AGC DEVICE AND METHOD
US0339678W	WO2004054312	WO	2003-12-11	NXM CROSSPOINT SWITCH WITH BAND TRANSLATION
US11/618922	US20070111661	US	2007-01-01	INTEGRATED CROSSPOINT SWITCH WITH BAND TRANSLATION
AU2003297006A	AU2003297006	AU	2003-12-11	SIGNAL DISTRIBUTION SYSTEM CASCADABLE AGC DEVICE AND METHOD
AT03797006T	AT403276	AT	2003-12-11	INTEGRATED CROSS-LINKING WITH BAND IMPLEMENTATION
AU2003293542A	AU2003293542	AU	2003-12-11	NXM CROSSPOINT SWITCH WITH BAND TRANSLATION
AU2003297935A	AU2003297935	AU	2003-12-11	INTEGRATED CROSSPOINT SWITCH WITH BAND TRANSLATION
EP03797006A	EP1573931	EP	2003-12-11	INTEGRATED CROSSPOINT SWITCH WITH BAND TRANSLATION
US12/477339	US20090239491	US	2009-06-03	SIGNAL DISTRIBUTION SYSTEM CASCADABLE AGC DEVICE AND METHOD
EP03790493A	EP1574084	EP	2003-12-11	NXM CROSSPOINT SWITCH WITH BAND TRANSLATION
AT03790493T	AT458358	AT	2003-12-11	CROSS-REFERENCE WITH BAND IMPLEMENTATION
US14/882937	US20160072534	US	2015-10-14	SIGNAL DISTRIBUTION SYSTEM CASCADABLE AGC DEVICE AND METHOD
DK03790493T	DK1574084	DK	2003-12-11	NXM CROSS-POINT CONTACT WITH BAND TURNOVER
DE60322583T	DE60322583	DE	2003-12-11	INTEGRATED CROSS-LINKING WITH BAND IMPLEMENTATION
DE60331350T	DE60331350	DE	2003-12-11	CROSS-REFERENCE WITH BAND IMPLEMENTATION
JP2004558210A	JP2006510247	JP	2003-12-11	INTEGRATED CROSSPOINT SWITCH

**EXECUTION VERSION**

Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				WITH BANDWIDTH CONVERSION FUNCTION
US11/164768	US7271640	US	2005-12-05	MIXER CIRCUIT WITH BYPASS AND MIXING MODES HAVING CONSTANT EVEN ORDER GENERATION AND METHOD OF OPERATION
US11/537628	US7526264	US	2006-09-30	NXM CROSSPOINT SWITCH WITH BAND TRANSLATION
US11/538627	US7558551	US	2006-10-04	SIGNAL DISTRIBUTION SYSTEM CASCADABLE AGC DEVICE AND METHOD
CN200380108801A	CN100555885	CN	2003-12-11	INTEGRATED CROSSPOINT SWITCH WITH BAND TRANSLATION
CN200380108717A	CN1739252	CN	2003-12-11	SIGNAL DISTRIBUTION SYSTEM CASCADABLE AGC DEVICE AND METHOD
US10/675566	US8223775	US	2003-09-30	ARCHITECTURE FOR A FLEXIBLE AND HIGH-PERFORMANCE GATEWAY CABLE MODEM
US10/289011	US7130576	US	2002-11-06	SIGNAL SELECTOR AND COMBINER FOR BROADBAND CONTENT DISTRIBUTION
US11/553456	US7542715	US	2006-10-26	SIGNAL SELECTOR AND COMBINER FOR BROADBAND CONTENT DISTRIBUTION
US2007089192W	WO2008064371	WO	2007-12-31	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
EP07870121A	EP2087623	EP	2007-12-31	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
AT07870121T	AT474388	AT	2007-12-31	FREQUENCY TRANSMISSION AND STACKING OF SATELLITE SIGNALS
DE602007007808T	DE602007007808	DE	2007-12-31	FREQUENCY TRANSMISSION AND STACKING OF SATELLITE SIGNALS
PT07870121T	PT2087623	PT	2007-12-31	SATELLITE SIGNAL FREQUENCY

**EXECUTION VERSION**

Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				TRANSLATION AND STACKING
US15/830072	US10439746	US	2017-12-04	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
US16/595527	US20200280382	US	2019-10-08	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
US16/883504	US20200295858	US	2020-05-26	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
US12/015773	US8023912	US	2008-01-17	CIRCUITS, SYSTEMS AND METHODS FOR FREQUENCY TRANSLATION AND SIGNAL DISTRIBUTION
US12/016998	US8086170	US	2008-01-19	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
US13/334975	US8892026	US	2011-12-22	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
US12/015760	US9219557	US	2008-01-17	CIRCUITS, SYSTEMS AND METHODS FOR CONSTRUCTING A COMPOSITE SIGNAL
US14/451359	US9413476	US	2014-08-04	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
US14/978049	US9853757	US	2015-12-22	SATELLITE SIGNAL FREQUENCY TRANSLATION AND STACKING
DK08727812T	DK2119069	DK	2008-01-17	TRANSLATIONAL SWITCHING SYSTEM AND SIGNAL DISTRIBUTION SYSTEM USING THE SAME
AT08727812T	AT511253	AT	2008-01-17	TRANSLATION SWITCHING SYSTEM AND SIGNAL DISTRIBUTION SYSTEM THEREWITH
US2008051287W	WO2008089317	WO	2008-01-17	CIRCUITS, SYSTEMS, AND METHODS FOR FREQUENCY

**EXECUTION VERSION**

Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				TRANSLATION AND SIGNAL DISTRIBUTION
US2008051290W	WO2008089318	WO	2008-01-17	TRANSLATIONAL SWITCHING SYSTEM AND SIGNAL DISTRIBUTION SYSTEM EMPLOYING SAME
US2008051285W	WO2008089315	WO	2008-01-17	CIRCUITS, SYSTEMS, AND METHODS FOR CONSTRUCTING A COMPOSITE SIGNAL
EP08727807A	EP2119067	EP	2008-01-17	CIRCUITS, SYSTEMS, AND METHODS FOR CONSTRUCTING A COMPOSITE SIGNAL
EP08727809A	EP2119068	EP	2008-01-17	CIRCUITS, SYSTEMS, AND METHODS FOR FREQUENCY TRANSLATION AND SIGNAL DISTRIBUTION
EP08727812A	EP2119069	EP	2008-01-17	TRANSLATIONAL SWITCHING SYSTEM AND SIGNAL DISTRIBUTION SYSTEM EMPLOYING SAME
US12/015774	US8009725	US	2008-01-17	TRANSLATIONAL SWITCHING SYSTEM AND SIGNAL DISTRIBUTION SYSTEM EMPLOYING SAME
US13/220530	US8300681	US	2011-08-29	TRANSLATIONAL SWITCHING SYSTEM AND SIGNAL DISTRIBUTION SYSTEM EMPLOYING SAME
ES07870121T	ES2348410	ES	2007-12-31	FREQUENCY SIGNAL OF SATELLITE AND STACKED TRANSLATION.
US2008053212W	WO2008098075	WO	2008-02-06	FULL MESH RATES TRANSACTION IN A NETWORK
US2008053222W	WO2008098083	WO	2008-02-06	PARAMETERIZED QUALITY OF SERVICE ARCHITECTURE IN A NETWORK
US2008053202W	WO2008098066	WO	2008-02-06	A LAYER-2 MANAGEMENT ENTITY MESSAGING FRAMEWORK IN A NETWORK
EP08729205A	EP2115954	EP	2008-02-06	PARAMETERIZED QUALITY OF SERVICE

**EXECUTION VERSION**

Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				ARCHITECTURE IN A NETWORK
EP08729196A	EP2119126	EP	2008-02-06	FULL MESH RATES TRANSACTION IN A NETWORK
US12/027216	US8176181	US	2008-02-06	LAYER-2 MANAGEMENT ENTITY MESSAGING FRAMEWORK IN A NETWORK
EP08729186A	EP2115945	EP	2008-02-06	A LAYER-2 MANAGEMENT ENTITY MESSAGING FRAMEWORK IN A NETWORK
JP2009549223A	JP5168699	JP	2008-02-06	PARAMETERIZED QUALITY OF SERVICE ARCHITECTURE IN NETWORKS
JP2009549219A	JP5266258	JP	2008-02-06	LAYER 2 MANAGEMENT ENTITY MESSAGING FRAMEWORK IN THE NETWORK
KR20097017142A	KR101457241	KR	2008-02-06	FULL MESH RATES TRANSACTION IN A NETWORK
US15/832390	US10432422	US	2017-12-05	PARAMETERIZED QUALITY OF SERVICE ARCHITECTURE IN A NETWORK
US12/027228	US8352569	US	2008-02-06	FULL MESH RATES TRANSACTION IN A NETWORK
US12/027202	US9838213	US	2008-02-06	PARAMETERIZED QUALITY OF SERVICE ARCHITECTURE IN A NETWORK
KR20097019206A	KR20090121327	KR	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
US16/681244	US20200099629	US	2019-11-12	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
US12/031496	US20080212591	US	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
US2008054006W	WO2008101112	WO	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
EP08729901A	EP2119131	EP	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK



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<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
EP12152213A	EP2448198	EP	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
EP12152215A	EP2456143	EP	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
EP12152218A	EP2458801	EP	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
EP12152219A	EP2469779	EP	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
CN200880004836A	CN101632266	CN	2008-02-14	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
US15/275180	US20170034074	US	2016-09-23	PARAMETERIZED QUALITY OF SERVICE IN A NETWORK
CN200880007920A	CN101632259	CN	2008-02-06	A LAYER-2 MANAGEMENT ENTITY MESSAGING FRAMEWORK IN A NETWORK
CN200880007840A	CN101632261	CN	2008-02-06	FULL MESH RATES TRANSACTION IN A NETWORK
CN200880007820A	CN101632268	CN	2008-02-06	PARAMETERIZED QUALITY OF SERVICE ARCHITECTURE IN A NETWORK
US2010050948W	WO2011041573	WO	2010-09-30	SYSTEM AND METHOD FOR A MANAGED NETWORK WITH QUALITY-OF-SERVICE
EP10821278A	EP2484057	EP	2010-09-30	SYSTEM AND METHOD FOR A MANAGED NETWORK WITH QUALITY-OF-SERVICE
KR20127009898A	KR20120099412	KR	2010-09-30	SYSTEM AND METHOD FOR A MANAGED NETWORK WITH QUALITY-OF-SERVICE
US15/975946	US20180262359	US	2018-05-10	SYSTEM AND METHOD FOR A MANAGED NETWORK WITH QUALITY-OF-SERVICE MANAGEMENT
US12/895312	US10009189	US	2010-09-30	SYSTEM AND METHOD FOR A MANAGED NETWORK WITH QUALITY-OF-SERVICE MANAGEMENT

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
US2008063231W	WO2008141169	WO	2008-05-09	AGGREGATING NETWORK PACKETS FOR TRANSMISSION TO A DESTINATION NODE
US13/556040	US8750298	US	2012-07-23	AGGREGATING NETWORK PACKETS FOR TRANSMISSION TO A DESTINATION NODE
US12/117890	US8228910	US	2008-05-09	AGGREGATING NETWORK PACKETS FOR TRANSMISSION TO A DESTINATION NODE
US11/027952	US7477871	US	2004-12-31	SIGNAL SELECTOR AND COMBINER SYSTEM FOR BROADBAND CONTENT DISTRIBUTION
IB2008054071W	WO2009044382	WO	2008-10-03	METHOD, SYSTEM AND APPARATUS FOR EXTENDED RATE/RANGE COMMUNICATION OF MULTIMEDIA DATA OVER COAXIAL CABLE NETWORK
TW97138116A	TW200926809	TW	2008-10-03	METHOD, SYSTEM AND APPARATUS FOR EXTENDED RATE/RANGE COMMUNICATION OVER A COMMUNICATION NETWORK
US12/245498	US8351368	US	2008-10-03	METHOD FOR EXTENDED RATE/RANGE COMMUNICATION OVER A COMMUNICATION NETWORK
US13/735957	US9413632	US	2013-01-07	METHOD FOR EXTENDED RATE/RANGE COMMUNICATION OVER A COMMUNICATION NETWORK
US11/027999	US7522875	US	2004-12-31	SIGNAL SELECTOR AND COMBINER SYSTEM FOR BROADBAND CONTENT DISTRIBUTION
US12/473656	US7995459	US	2009-05-28	ECHO PROFILE PROBE
US13/032580	US8588055	US	2011-02-22	ECHO PROFILE PROBE
US11/229297	US7542411	US	2005-09-16	ECHO PROFILE PROBE
US14/081512	US8824270	US	2013-11-15	ECHO PROFILE PROBE
TW97138114A	TW200943794	TW	2008-10-03	METHOD FOR EFFICIENT PACKET FRAMING IN A COMMUNICATION NETWORK

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
US15/156389	US10033484	US	2016-05-17	METHOD FOR EFFICIENT PACKET FRAMING IN A COMMUNICATION NETWORK
US16/004477	US10812223	US	2018-06-11	METHOD FOR EFFICIENT PACKET FRAMING IN A COMMUNICATION NETWORK
US12/245535	US20090254794	US	2008-10-03	METHOD FOR EFFICIENT PACKET FRAMING IN A COMMUNICATION NETWORK
IB2009051427W	WO2009122383	WO	2009-04-03	METHOD FOR EFFICIENT PACKET FRAMING IN A COMMUNICATION NETWORK
US2009044404W	WO2009143082	WO	2009-05-18	CHANNEL STACKING SYSTEM AND METHOD OF OPERATION
EP09751310A	EP2289244	EP	2009-05-18	CHANNEL STACKING SYSTEM AND METHOD OF OPERATION
KR20107028130A	KR20110021891	KR	2009-05-18	CHANNEL STACKING SYSTEM AND METHOD OF OPERATION
CN200980118574A	CN102037727	CN	2009-05-18	CHANNEL STACKING SYSTEM AND METHOD OF OPERATION
HK11111101A	HK1157099	HK	2011-10-18	CHANNEL STACKING SYSTEM AND METHOD OF OPERATION
JP2011510624A	JP5560471	JP	2009-05-18	CHANNEL STACK SYSTEM AND OPERATION METHOD
US12/414892	US8345798	US	2009-03-31	CHANNEL STACKING SYSTEM AND METHOD OF OPERATION
KR20117006794A	KR20110081956	KR	2009-09-11	HIGH-EFFICIENCY PREAMBLES FOR COMMUNICATIONS SYSTEMS OVER PSEUDO-STATIONARY COMMUNICATION CHANNELS
ES09813640T	ES2481043	ES	2009-09-11	HIGH EFFICIENCY PREAMBLES FOR COMMUNICATION SYSTEMS ON PSEUDO-STATIONARY COMMUNICATION CHANNELS
HK12101225A	HK1161005	HK	2012-02-08	HIGH-EFFICIENCY PREAMBLES FOR

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				COMMUNICATIONS SYSTEMS OVER PSEUDO-STATIONARY COMMUNICATION CHANNELS
US12/557288	US8179920	US	2009-09-10	HIGH EFFICIENCY PREAMBLES FOR COMMUNICATIONS SYSTEMS OVER PSEUDO-STATIONARY COMMUNICATION CHANNELS
US13/466582	US8711848	US	2012-05-08	HIGH-EFFICIENCY PREAMBLES FOR COMMUNICATIONS SYSTEMS OVER PSEUDO-STATIONARY COMMUNICATION CHANNELS
BRPI0917112A	BRPI0917112	BR	2009-09-11	HIGH EFFICIENCY PREAMBLES FOR PSEUDO-STATIONARY COMMUNICATION CHANNEL COMMUNICATION SYSTEMS
US2009056587W	WO2010030831	WO	2009-09-11	HIGH-EFFICIENCY PREAMBLES FOR COMMUNICATIONS SYSTEMS OVER PSEUDO-STATIONARY COMMUNICATION CHANNELS
CA2736268A	CA2736268	CA	2009-09-11	HIGH-EFFICIENCY PREAMBLES FOR COMMUNICATIONS SYSTEMS OVER PSEUDO-STATIONARY COMMUNICATION CHANNELS
JP2011526981A	JP5433856	JP	2009-09-11	HIGH-EFFICIENCY PREAMBLE FOR COMMUNICATION SYSTEMS OVER PSEUDO-FIXED COMMUNICATION CHANNELS
EP09813640A	EP2324609	EP	2009-09-11	HIGH-EFFICIENCY PREAMBLES FOR COMMUNICATIONS SYSTEMS OVER PSEUDO-STATIONARY

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<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
				COMMUNICATION CHANNELS
CN200980135360A	CN102150403	CN	2009-09-11	HIGH EFFICIENCY PREAMBLES FOR COMMUNICATIONS SYSTEMS OVER PSEUDO-STATIONARY COMMUNICATION CHANNELS
KR20117007513A	KR20110076909	KR	2009-09-30	DATA TRANSMISSION OVER A NETWORK WITH CHANNEL BONDING
US12/241629	US8266265	US	2008-09-30	DATA TRANSMISSION OVER A NETWORK WITH CHANNEL BONDING
US2009058938W	WO2010039770	WO	2009-09-30	DATA TRANSMISSION OVER A NETWORK WITH CHANNEL BONDING
CA2736262A	CA2736262	CA	2009-09-30	DATA TRANSMISSION OVER A NETWORK WITH CHANNEL BONDING
JP2011530154A	JP2012504914	JP	2009-09-30	DATA TRANSMISSION OVER THE NETWORK USING CHANNEL BONDING
GB201103868A	GB2476001	GB	2009-09-30	DATA TRANSMISSION OVER A NETWORK WITH CHANNEL BONDING
AU2009298598A	AU2009298598	AU	2009-09-30	DATA TRANSMISSION OVER A NETWORK WITH CHANNEL BONDING
JP2014161621A	JP2014239521	JP	2014-08-07	DATA TRANSMISSION OVER NETWORK WITH CHANNEL BONDING
CN200980137718A	CN102165799	CN	2009-09-30	DATA TRANSMISSION OVER A NETWORK WITH CHANNEL BONDING
US12/579312	US20100094995	US	2009-10-14	SILENT PROBES IN A COMMUNICATION NETWORK
US2009060952W	WO2010045528	WO	2009-10-16	METHOD AND APPARATUS FOR USING RANGING MEASUREMENTS IN A MULTIMEDIA HOME NETWORK
AU2009305655A	AU2009305655	AU	2009-10-16	METHOD AND APPARATUS FOR USING RANGING MEASUREMENTS IN A MULTIMEDIA HOME NETWORK

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
CA2738947A	CA2738947	CA	2009-10-16	METHOD AND APPARATUS FOR USING RANGING MEASUREMENTS IN A MULTIMEDIA HOME NETWORK
EP09821305A	EP2338242	EP	2009-10-16	METHOD AND APPARATUS FOR USING RANGING MEASUREMENTS IN A MULTIMEDIA HOME NETWORK
CN200980138931A	CN102171954	CN	2009-10-16	METHOD AND APPARATUS FOR USING RANGING MEASUREMENTS IN A MULTIMEDIA HOME NETWORK
HK12101941A	HK1161451	HK	2012-02-27	METHOD AND APPARATUS FOR USING RANGING MEASUREMENTS IN A MULTIMEDIA HOME NETWORK
IL21202111A	IL212021	IL	2011-03-29	METHOD AND APPARATUS FOR USING RANGING MEASUREMENTS IN A MULTIMEDIA HOME NETWORK
US12/580127	US8363681	US	2009-10-15	METHOD AND APPARATUS FOR USING RANGING MEASUREMENTS IN A MULTIMEDIA HOME NETWORK
US2009060995W	WO2010045550	WO	2009-10-16	METHOD AND APPARATUS FOR PERFORMING CONSTELLATION SCRAMBLING IN A MULTIMEDIA HOME NETWORK
AU2009305594A	AU2009305594	AU	2009-10-16	METHOD AND APPARATUS FOR PERFORMING CONSTELLATION SCRAMBLING IN A MULTIMEDIA HOME NETWORK
CA2738949A	CA2738949	CA	2009-10-16	METHOD AND APPARATUS FOR

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				PERFORMING CONSTELLATION SCRAMBLING IN A MULTIMEDIA HOME NETWORK
GB201104519A	GB2476413	GB	2009-10-16	METHOD AND APPARATUS FOR PERFORMING CONSTELLATION SCRAMBLING IN A MULTIMEDIA HOME NETWORK
CN200980139001A	CN102171956	CN	2009-10-16	METHOD AND APPARATUS FOR PERFORMING CONSTELLATION SCRAMBLING IN A MULTIMEDIA HOME NETWORK
JP2011532283A	JP5655224	JP	2009-10-16	METHOD AND APPARATUS FOR PERFORMING CONSTELLATION SCRAMBLING IN A MULTIMEDIA HOME NETWORK
US12/580227	US8320566	US	2009-10-15	METHOD AND APPARATUS FOR PERFORMING CONSTELLATION SCRAMBLING IN A MULTIMEDIA HOME NETWORK
US12/581063	US8418036	US	2009-10-16	METHOD AND APPARATUS FOR PERFORMING FORWARD ERROR CORRECTION IN AN ORTHOGONAL FREQUENCY DIVISION MULTIPLEXED COMMUNICATION NETWORK
US10/734535	US7724639	US	2003-12-11	METHOD OF BIT ALLOCATION IN A MULTICARRIER SYMBOL TO ACHIEVE NON-PERIODIC FREQUENCY DIVERSITY
US12/635649	US8284690	US	2009-12-10	RECEIVER DETERMINED PROBE
US2009067586W	WO2010074993	WO	2009-12-10	RECEIVER DETERMINED PROBE

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
EP09835530A	EP2377022	EP	2009-12-10	RECEIVER DETERMINED PROBE
KR20117016529A	KR20110104524	KR	2009-12-10	RECEIVER DETERMINED PROBE
CN200980150275A	CN102246149	CN	2009-12-10	DETECTED SIGNALS DETERMINED BY RECEIVER
US12/336975	US8634498	US	2008-12-17	SYSTEMS AND METHODS FOR PROBING WIRED COMMUNICATION CHANNELS
US14/158484	US9210062	US	2014-01-17	SYSTEMS AND METHODS FOR PROBING WIRED COMMUNICATION
US14/960498	US9787566	US	2015-12-07	SYSTEMS AND METHODS FOR PROBING WIRED COMMUNICATION
US2009067452W	WO2010077761	WO	2009-12-10	SYSTEMS AND METHODS FOR PROBING WIRED COMMUNICATION CHANNELS.
EP09836782A	EP2338230	EP	2009-12-10	SYSTEMS AND METHODS FOR PROBING WIRED COMMUNICATION CHANNELS.
KR20117007387A	KR20110100615	KR	2009-12-10	SYSTEMS AND METHODS FOR PROBING WIRED COMMUNICATION CHANNELS
JP2011542267A	JP5594486	JP	2009-12-10	SYSTEM AND METHOD FOR PROBING A WIRED COMMUNICATION CHANNEL
CN200980138976A	CN102171932	CN	2009-12-10	SYSTEMS AND METHODS FOR PROBING WIRED COMMUNICATION CHANNELS
US12/686645	US20100180112	US	2010-01-13	SECURE NODE ADMISSION IN A COMMUNICATION NETWORK
US2011040838W	WO2011163073	WO	2011-06-17	SECURE NODE ADMISSION IN A COMMUNICATION NETWORK
CN201180031243A	CN102948128	CN	2011-06-17	SECURE NODE ADMISSION IN A COMMUNICATION NETWORK
EP11798672A	EP2586180	EP	2011-06-17	SECURE NODE ADMISSION IN A



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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				COMMUNICATION NETWORK
JP2013516630A	JP2013539248	JP	2011-06-17	SECURE NODE AUTHORIZATION IN COMMUNICATION NETWORKS
KR20127033232A	KR20130111960	KR	2011-06-17	SECURE NODE ADMISSION IN A COMMUNICATION NETWORK
US15/904911	US10594672	US	2018-02-26	SECURE NODE ADMISSION IN A COMMUNICATION NETWORK
US12/820382	US8699704	US	2010-06-22	SECURE NODE ADMISSION IN A COMMUNICATION NETWORK
US14/188328	US9300468	US	2014-02-24	SECURE NODE ADMISSION IN A COMMUNICATION NETWORK
US15/083816	US9906508	US	2016-03-29	SECURE NODE ADMISSION IN A COMMUNICATION NETWORK
US12/688535	US8340125	US	2010-01-15	METHOD AND APPARATUS FOR BLOCK ACKNOWLEDGEMENT IN A COMMUNICATION NETWORK
US2010021223W	WO2010083429	WO	2010-01-15	METHOD AND APPARATUS FOR BLOCK ACKNOWLEDGEMENT IN A COMMUNICATION NETWORK
EP10732160A	EP2380317	EP	2010-01-15	METHOD AND APPARATUS FOR BLOCK ACKNOWLEDGEMENT IN A COMMUNICATION NETWORK
KR20117015101A	KR20110103986	KR	2010-01-15	METHOD AND APPARATUS FOR BLOCK ACKNOWLEDGEMENT IN A COMMUNICATION NETWORK
CN201080003900A	CN102273143	CN	2010-01-15	METHOD AND APPARATUS FOR BLOCK ACKNOWLEDGEMENT IN A COMMUNICATION NETWORK

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<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
EP10701084A	EP2387838	EP	2010-01-15	RETRANSMISSION ADMISSION MECHANISM IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
ES10701084T	ES2399598	ES	2010-01-15	RELAY ADMISSION MECHANISM IN A SHARED NETWORK MANAGED WITH QUALITY OF SERVICE
PL10701084T	PL2387838	PL	2010-01-15	RETRANSMISSION ADMISSION MECHANISM IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
US12/688559	US8468200	US	2010-01-15	RETRANSMISSION ADMISSION MECHANISM IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
US2010021253W	WO2010083447	WO	2010-01-15	RETRANSMISSION ADMISSION MECHANISM IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
KR20117018969A	KR20110107851	KR	2010-01-15	RETRANSMISSION ADMISSION MECHANISM IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
JP2011546403A	JP5579199	JP	2010-01-15	RETRANSMISSION ADMISSION MECHANISM IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
CN201080004714A	CN102282813	CN	2010-01-15	MECHANISM IS PERMITTED IN THE REPEATING TRANSMISSION HAD IN THE MANAGED SHARED NETWORK OF SERVICE QUALITY
HK12105793A	HK1165149	HK	2012-06-14	METHOD AND APPARATUS FOR LAYER DISCOVERY IN A MANAGED SHARED NETWORK
US15/808431	US10594566	US	2017-11-09	METHOD AND APPARATUS FOR LAYER 2 DISCOVERY IN A MANAGED SHARED NETWORK

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<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
US12/688518	US9106554	US	2010-01-15	METHOD AND APPARATUS FOR LAYER 2 DISCOVERY IN A MANAGED SHARED NETWORK
US14/801149	US9853865	US	2015-07-16	METHOD AND APPARATUS FOR LAYER 2 DISCOVERY IN A MANAGED SHARED NETWORK
US2010021266W	WO2010083458	WO	2010-01-15	METHOD AND APPARATUS FOR LAYER 2 DISCOVERY IN A MANAGED SHARED NETWORK
EP10700925A	EP2387835	EP	2010-01-15	METHOD AND APPARATUS FOR LAYER 2 DISCOVERY IN A MANAGED SHARED NETWORK
CN201080004838A	CN102282803	CN	2010-01-15	METHOD AND APPARATUS FOR LAYER 2 DISCOVERY IN A MANAGED SHARED NETWORK
CL2014000978A	CL2014000978	CL	2014-04-16	METODO PARA DETERMINAR LA ADMISION DE UN FLUJO EN UNA RED DE COMUNICACIONES, QUE COMPRENDE ESTABLECER UN ANCHO DE BANDA PREDETERMINADO A RESERVAR PARA FLUJOS DE PQOS, ESTABLECER UN PROCESO DE ADMISION DE FLUJO PARA DETERMINAR SI ADMITE UN NUEVO FLUJO, PREDETERMINAR CUANTO ANCHO DE BANDA PREDETERMINADO YA SE HA ASIGNADO A FLUJOS ACTUALMENTE ADMITIDOS Y DETERMINAR SI LA CANTIDAD DE ANCHO DE BANDA REQUERIDA POR EL FLUJO NO ES MAYOR QUE LA CANTIDAD DE

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				ANCHO DE BANDA RESERVADA MENOS LA CANTIDAD YA ASIGNADA
CL2011002033A	CL2011002033	CL	2011-08-19	UN METODO Y SISTEMA PARA LA PROGRAMACION DE COMUNICACIONES DE RED EN UNA RED ADMINISTRADA QUE TIENE UN COORDINADOR DE RED Y UNA VARIEDAD DE NODOS DE RED ASOCIADOS.
IL21441411A	IL214414	IL	2011-08-02	FLEXIBLE RESERVATION REQUEST AND SCHEDULING MECHANISMS IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
US12/709435	US8416685	US	2010-02-19	FLEXIBLE RESERVATION REQUEST AND SCHEDULING MECHANISMS IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
BRPI1008877A	BRPI1008877	BR	2010-02-19	FLEXIBLE RESERVATION REQUEST AND ESCALATION MECHANISMS IN A QUALITY-OF-SERVICE MANAGED SHARED NETWORK
US2010024837W	WO2010096726	WO	2010-02-19	FLEXIBLE RESERVATION REQUEST AND SCHEDULING MECHANISMS IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
CA2752917A	CA2752917	CA	2010-02-19	FLEXIBLE RESERVATION REQUEST AND SCHEDULING MECHANISMS IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
AU2010215830A	AU2010215830	AU	2010-02-19	FLEXIBLE RESERVATION REQUEST AND SCHEDULING MECHANISMS IN A MANAGED SHARED

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				NETWORK WITH QUALITY OF SERVICE
KR20117021960A	KR20110132386	KR	2010-02-19	FLEXIBLE RESERVATION REQUEST AND SCHEDULING MECHANISMS IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
JP2011551263A	JP5628211	JP	2010-02-19	FLEXIBLE RESERVATION REQUEST AND SCHEDULING MECHANISM WITHIN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
US12/862636	US8566678	US	2010-08-24	BROADBAND SATELLITE SYSTEM FOR THE SIMULTANEOUS RECEPTION OF MULTIPLE CHANNELS USING SHARED ITERATIVE DECODER
US11/555685	US7783958	US	2006-11-01	BROADBAND SATELLITE SYSTEM FOR THE SIMULTANEOUS RECEPTION OF MULTIPLE CHANNELS USING SHARED ITERATIVE DECODER
HK12107120A	HK1166530	HK	2012-07-20	A METHOD FOR QUICK MAP RECOVERY IN CASE OF ERROR IN MOCA MOCA MAP
US12/415875	US9008077	US	2009-03-31	METHOD FOR QUICK MAP RECOVERY IN CASE OF ERROR IN MOCA
US2010027431W	WO2010107758	WO	2010-03-16	A METHOD FOR QUICK MAP RECOVERY IN CASE OF ERROR IN MOCA
CN201080011003A	CN102341784	CN	2010-03-16	METHOD FOR QUICK MAP RECOVERY IN CASE OF ERROR IN MOCA
JP2012500879A	JP5736612	JP	2010-03-16	QUICK MAP RECOVERY METHOD IN CASE OF ERROR IN MOCA
US12/819106	US8767607	US	2010-06-18	METHOD AND APPARATUS FOR PERFORMING MULTICAST IN COMMUNICATIONS NETWORK

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
US12/833827	US8553727	US	2010-07-09	METHOD AND APPARATUS FOR LDPC TRANSMISSION OVER A CHANNEL BONDED LINK
US15/632826	US10491331	US	2017-06-26	METHOD AND APPARATUS FOR LDPC TRANSMISSION OVER A CHANNEL BONDED LINK
US16/693852	US20200235849	US	2019-11-25	METHOD AND APPARATUS FOR LDPC TRANSMISSION OVER A CHANNEL BONDED LINK
US13/402014	US8638808	US	2012-02-22	METHOD AND APPARATUS FOR LDPC TRANSMISSION OVER A CHANNEL BONDED LINK
US14/165005	US8913635	US	2014-01-27	METHOD AND APPARATUS FOR LDPC TRANSMISSION OVER A CHANNEL BONDED LINK
US14/510971	US9184872	US	2014-10-09	METHOD AND APPARATUS FOR LDPC TRANSMISSION OVER A CHANNEL BONDED LINK
US14/877598	US9749088	US	2015-10-07	METHOD AND APPARATUS FOR LDPC TRANSMISSION OVER A CHANNEL BONDED LINK
US11/763359	US7941091	US	2007-06-14	SIGNAL DISTRIBUTION SYSTEM EMPLOYING A MULTI-STAGE SIGNAL COMBINER NETWORK
IL22005112A	IL220051	IL	2012-05-29	METHOD AND APPARATUS FOR COMMUNICATING UNICAST PQOS DFID INFORMATION
US12/955642	US8861357	US	2010-11-29	METHOD AND APPARATUS FOR COMMUNICATING UNICAST PQOS DFID INFORMATION
US2010058209W	WO2011066507	WO	2010-11-29	METHOD AND APPARATUS FOR COMMUNICATING UNICAST PQOS DFID INFORMATION
CA2782086A	CA2782086	CA	2010-11-29	METHOD AND APPARATUS FOR COMMUNICATING UNICAST PQOS DFID INFORMATION

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<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
AU2010324597A	AU2010324597	AU	2010-11-29	METHOD AND APPARATUS FOR COMMUNICATING UNICAST PQOS DFID INFORMATION
CN201080054300A	CN102687467	CN	2010-11-29	FOR TRANSMITTING THE METHOD AND APPARATUS OF CLEAN CULTURE PQOS DFID INFORMATION
EP10834013A	EP2507945	EP	2010-11-29	METHOD AND APPARATUS FOR COMMUNICATING UNICAST PQOS DFID INFORMATION
MX2012008674A	MX2012008674	MX	2011-01-26	METHOD AND APPARATUS FOR USE OF SILENT SYMBOLS IN A COMMUNICATIONS NETWORK.
US13/013795	US8593983	US	2011-01-25	METHOD AND APPARATUS FOR USE OF SILENT SYMBOLS IN A COMMUNICATIONS NETWORK
US2011022512W	WO2011094263	WO	2011-01-26	METHOD AND APPARATUS FOR USE OF SILENT SYMBOLS IN A COMMUNICATIONS NETWORK
CA2785805A	CA2785805	CA	2011-01-26	METHOD AND APPARATUS FOR USE OF SILENT SYMBOLS IN A COMMUNICATIONS NETWORK
KR20127021796A	KR20120127608	KR	2011-01-26	METHOD AND APPARATUS FOR USE OF SILENT SYMBOLS IN A COMMUNICATIONS NETWORK
JP2012550217A	JP2013518478	JP	2011-01-26	METHOD AND APPARATUS FOR USING SILENT SYMBOLS IN A COMMUNICATION NETWORK
BR112012017689A	BR112012017689	BR	2011-01-26	METHOD AND APPARATUS FOR THE USE OF SILENT SYMBOLS IN A COMMUNICATIONS NETWORK
US13/041662	US20110216776	US	2011-03-07	METHOD AND APPARATUS FOR

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				ASYNCHRONOUS ORTHOGONAL FREQUENCY DIVISION MULTIPLE ACCESS
US13/075719	US9270401	US	2011-03-30	METHOD AND APPARATUS FOR ASYNCHRONOUS ORTHOGONAL FREQUENCY DIVISION MULTIPLE ACCESS
US13/335735	US8891544	US	2011-12-22	MULTIMEDIA OVER COAXIAL CABLE ACCESS PROTOCOL
US11/292939	US8085802	US	2005-12-02	MULTIMEDIA OVER COAXIAL CABLE ACCESS PROTOCOL
US15/426253	US10257566	US	2017-02-07	BROADBAND LOCAL AREA NETWORK
US11/231349	US8631450	US	2005-09-19	BROADBAND LOCAL AREA NETWORK
US11/241748	US8621539	US	2005-09-29	PHYSICAL LAYER TRANSMITTER FOR USE IN A BROADBAND LOCAL AREA NETWORK
US11/292947	US8498294	US	2005-12-02	MULTIMEDIA OVER COAXIAL CABLE ACCESS PROTOCOL
US14/154101	US9172993	US	2014-01-13	BROADBAND LOCAL AREA NETWORK
US14/861198	US9565469	US	2015-09-22	BROADBAND LOCAL AREA NETWORK
US15/045674	US10091133	US	2016-02-17	NETWORK CONTROL TO IMPROVE BANDWIDTH UTILIZATION AND PARAMETERIZED QUALITY OF SERVICE
US16/109396	US10270710	US	2018-08-22	NETWORK CONTROL TO IMPROVE BANDWIDTH UTILIZATION AND PARAMETERIZED QUALITY OF SERVICE
US16/391402	US10715461	US	2019-04-23	NETWORK CONTROL TO IMPROVE BANDWIDTH UTILIZATION AND PARAMETERIZED QUALITY OF SERVICE
US12/822676	US9294297	US	2010-06-24	NODE-BASED QUALITY-OF-SERVICE MANAGEMENT
US2011040844W	WO2011163074	WO	2011-06-17	NODE-BASED QUALITY-OF-SERVICE MANAGEMENT



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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
CN201180031267A	CN102959532	CN	2011-06-17	SERVICE QUALITY MANAGEMENT BASED ON NODE
EP11798673A	EP2585940	EP	2011-06-17	NODE-BASED QUALITY-OF-SERVICE MANAGEMENT
BR112012033068A	BR112012033068	BR	2011-06-17	NODE-BASED QUALITY OF SERVICE MANAGEMENT
KR20100001628U	KR20110008221	KR	2010-02-16	A PROMOTIONAL INSTANT LOTTERY TO CHOOSE THE WINNING TARGET
US2012022109W	WO2012100220	WO	2012-01-20	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES
CA2825707A	CA2825707	CA	2012-01-20	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES
EP12736161A	EP2666271	EP	2012-01-20	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES
CN201280011617A	CN103649880	CN	2012-01-20	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES
MX2013008537A	MX2013008537	MX	2012-01-20	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES.
BR112013018687A	BR112013018687	BR	2012-01-20	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCKING CONVERTERS

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
				INCLUDING DIGITAL CHANNEL SWITCHES
US15/155860	US20170026059	US	2016-05-16	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES
US14/962637	US9565012	US	2015-12-08	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES
JP2013550643A	JP2014507885	JP	2012-01-20	SYSTEM AND METHOD FOR SELECTING A DIGITAL CONTENT CHANNEL USING A LOW NOISE BLOCK CONVERTER INCLUDING A DIGITAL CHANNELIZER SWITCH
US14/334443	US9209957	US	2014-07-17	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES
US13/355413	US9344262	US	2012-01-20	SYSTEMS AND METHODS FOR SELECTING DIGITAL CONTENT CHANNELS USING LOW NOISE BLOCK CONVERTERS INCLUDING DIGITAL CHANNELIZER SWITCHES
US2012025268W	WO2012112693	WO	2012-02-15	OPTICAL CONVERTER WITH ADC BASED CHANNELIZER FOR OPTICAL LNB SYSTEM
EP12746894A	EP2676392	EP	2012-02-15	OPTICAL CONVERTER WITH ADC BASED CHANNELIZER FOR OPTICAL LNB SYSTEM
CN201280015423A	CN103609049	CN	2012-02-15	THE OPTICAL CONVERTER WITH CHANNELIZATION DEVICE BASED ON ADC AND METHOD FOR OPTICS LNB SYSTEM

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
BR112013020927A	BR112013020927	BR	2012-02-15	ADC-BASED PLUMBING OPTICAL CONVERTER FOR OPTICAL LNB SYSTEM
US13/397443	US9407369	US	2012-02-15	OPTICAL CONVERTER WITH ADC BASED CHANNELIZER FOR OPTICAL LNB SYSTEM
CL2013003205A	CL2013003205	CL	2013-11-08	PUENTE Y METODO DE RED CONFIGURADO PARA EFECTUAR COMUNICACIONES POR UNA RED MOCA Y UNA RED WIFI UTILIZANDO RECURSOS DE PUENTE COMPARTIDOS; METODO PARA COMPARTIR RECURSOS PARA DICHO PUENTE DE RED.
CN201280034198A	CN103650484	CN	2012-05-09	MOCA-WIFI MULTIPLEXING
US13/213370	US8831015	US	2011-08-19	MOCA-WIFI MULTIPLEXING
US2012037023W	WO2012154783	WO	2012-05-09	MOCA-WIFI MULTIPLEXING
EP12782382A	EP2708024	EP	2012-05-09	MOCA-WIFI MULTIPLEXING
BR112013028916A	BR112013028916	BR	2012-05-09	WIFI MOCHA MULTIPLEXING
US13/584541	US9923652	US	2012-08-13	FREQUENCY BAND SELECTION FOR MULTIPLE HOME NETWORKS
US2012050636W	WO2013025633	WO	2012-08-13	METHOD FOR SELECTING FREQUENCY BANDS IN A NETWORK DEVICE FOR MULTIPLE HOME NETWORKS
CA2844745A	CA2844745	CA	2012-08-13	METHOD FOR SELECTING FREQUENCY BANDS IN A NETWORK DEVICE FOR MULTIPLE HOME NETWORKS
KR20147004352A	KR20140048293	KR	2012-08-13	METHOD FOR SELECTING FREQUENCY BANDS IN A NETWORK DEVICE FOR MULTIPLE HOME NETWORKS
EP12751665A	EP2742623	EP	2012-08-13	METHOD FOR SELECTING FREQUENCY BANDS IN A NETWORK DEVICE FOR

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<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
				MULTIPLE HOME NETWORKS
CN201280050107A	CN103875199	CN	2012-08-13	METHOD FOR SELECTING FREQUENCY BANDS IN A NETWORK DEVICE FOR MULTIPLE HOME NETWORKS
BR112014003231A	BR112014003231	BR	2012-08-13	METHOD FOR SELECTING FREQUENCY BANDS ON NETWORK DEVICE FOR MULTIPLE NATIVE NETWORKS
US15/926153	US20180262286	US	2018-03-20	FREQUENCY BAND SELECTION FOR MULTIPLE HOME NETWORKS
CN201280061387A	CN104054330	CN	2012-12-11	10 GBPS COAXIAL CABLE NETWORKING SYSTEM
JP2014547344A	JP2015509299	JP	2012-12-11	10GBPS COAXIAL CABLE NETWORKING SYSTEM
US13/325418	US8792565	US	2011-12-14	10 GBPS COAXIAL CABLE NETWORKING SYSTEM
US2012068931W	WO2013090255	WO	2012-12-11	10 GBPS COAXIAL CABLE NETWORKING SYSTEM
EP12857728A	EP2792140	EP	2012-12-11	10 GBPS COAXIAL CABLE NETWORKING SYSTEM
BR112014014374A	BR112014014374	BR	2012-12-11	10 GBPS COAXIAL NETWORK CONNECTION SYSTEM
US12/689858	US8483152	US	2010-01-19	METHOD AND APPARATUS FOR USE OF OFDMA IN A COMMUNICATION NETWORK
US16/926067	US20210029227	US	2020-07-10	SOFTWARE UPGRADE IN A HOME NETWORK USING LOWER LAYER MESSAGING
KR20147029116A	KR20150003203	KR	2013-02-21	SOFTWARE UPGRADE USING LAYER-2 MANAGEMENT ENTITY MESSAGING
US2013027082W	WO2013158212	WO	2013-02-21	SOFTWARE UPGRADE USING LAYER-2 MANAGEMENT ENTITY MESSAGING
EP13777931A	EP2839613	EP	2013-02-21	SOFTWARE UPGRADE USING LAYER-2 MANAGEMENT ENTITY MESSAGING
US16/371842	US20190230200	US	2019-04-01	SOFTWARE UPGRADE IN A HOME NETWORK USING

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<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
				LOWER LAYER MESSAGING
CN201380027450A	CN104769889	CN	2013-02-21	SOFTWARE UPGRADE USING LAYER-2 MANAGEMENT ENTITY MESSAGING
US15/632677	US10250724	US	2017-06-26	SOFTWARE UPGRADE IN A HOME NETWORK USING LOWER LAYER MESSAGING
US13/448639	US9191461	US	2012-04-17	SOFTWARE UPGRADE USING LAYER-2 MANAGEMENT ENTITY MESSAGING
US14/933821	US9692859	US	2015-11-05	SOFTWARE UPGRADE USING LAYER-2 MANAGEMENT ENTITY MESSAGING
US13/403144	US8677441	US	2012-02-23	SCANNING ALGORITHM FOR EMBEDDED NETWORK DEVICES
US15/881000	US10182274	US	2018-01-26	METHOD AND APPARATUS FOR UNIFYING AN EPON ACCESS NETWORK AND A COAX BASED ACCESS NETWORK
US16/237410	US10575073	US	2018-12-31	METHOD AND APPARATUS FOR UNIFYING AN EPON ACCESS NETWORK AND A COAX-BASED ACCESS NETWORK
US14/383623	US9883260	US	2013-03-08	METHOD AND APPARATUS FOR UNIFYING AN EPON ACCESS NETWORK AND A COAX-BASED ACCESS NETWORK
US2013029923W	WO2013134663	WO	2013-03-08	METHOD AND APPARATUS FOR UNIFYING AN EPON ACCESS NETWORK AND A COAX-BASED ACCESS NETWORK
EP13757672A	EP2823591	EP	2013-03-08	METHOD AND APPARATUS FOR UNIFYING AN EPON ACCESS NETWORK AND A COAX-BASED ACCESS NETWORK

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<b>Application No.</b>	<b>Publication / Patent No.</b>	<b>Country</b>	<b>Filing Date</b>	<b>Title of Patent</b>
MX2014010679A	MX2014010679	MX	2013-03-08	METHOD AND APPARATUS FOR UNIFYING AN EPON ACCESS NETWORK AND A COAX-BASED ACCESS NETWORK.
US15/717550	US10129048	US	2017-09-27	PROGRESSIVE MODULATION FOR DOWNSTREAM ACCESS
US16/188962	US10771278	US	2018-11-13	PROGRESSIVE MODULATION FOR DOWNSTREAM ACCESS
US14/394800	US9780962	US	2013-04-16	PROGRESSIVE MODULATION FOR DOWNSTREAM ACCESS
US2013036724W	WO2013158604	WO	2013-04-16	PROGRESSIVE MODULATION FOR DOWNSTREAM ACCESS
MX2014012438A	MX2014012438	MX	2013-04-16	PROGRESSIVE MODULATION FOR DOWNSTREAM ACCESS.
EP13778670A	EP2839595	EP	2013-04-16	PROGRESSIVE MODULATION FOR DOWNSTREAM ACCESS
US10/961863	US8587722	US	2004-10-08	SYSTEM AND METHOD FOR AUTOMATICALLY CONTROLLING THE PHASE OF A CLOCK SIGNAL FOR SAMPLING AN HDTV SIGNAL
JP2015512813A	JP2015525494	JP	2013-05-15	MULTIPLE STREAM SIGNAL PROCESSING
US13/471613	US8913626	US	2012-05-15	SIGNAL PROCESSING OF MULTIPLE STREAMS
US2013041251W	WO2013173523	WO	2013-05-15	SIGNAL PROCESSING OF MULTIPLE STREAMS
EP13791255A	EP2850737	EP	2013-05-15	SIGNAL PROCESSING OF MULTIPLE STREAMS
MX2014013929A	MX2014013929	MX	2013-05-15	SIGNAL PROCESSING OF MULTIPLE STREAMS.
BR112014028626A	BR112014028626	BR	2013-05-15	MULTI-STREAM SIGNAL PROCESSING
US14/774845	US10103776	US	2014-03-11	SYNCHRONIZED MULTI-CHANNEL ACCESS SYSTEM
US16/161466	US10659103	US	2018-10-16	SYNCHRONIZED MULTI-CHANNEL ACCESS SYSTEM
US2014023639W	WO2014164856	WO	2014-03-11	SYNCHRONIZED MULTI-CHANNEL ACCESS SYSTEM

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
US15/030751	US20160282922	US	2014-11-20	NETWORK SENSING SYSTEMS AND METHODS FOR POWER MANAGEMENT
US15/037931	US10298413	US	2014-11-20	DEVICE AND METHOD FOR AUTOMATIC NETWORK DETECTION AND FORMATION
US16/735995	US20200153652	US	2020-01-07	DEVICE AND METHOD FOR AUTOMATIC NETWORK DETECTION AND FORMATION
US2014066654W	WO2015077470	WO	2014-11-20	COMMUNICATION DEVICE AND METHOD WHEREIN A CABLE IS SENSED FOR POWER MANAGEMENT
US2014066661W	WO2015077475	WO	2014-11-20	DEVICE AND METHOD FOR MANAGING POWER AND DETERMINING NETWORK PRESENCE
US2014066666W	WO2015077478	WO	2014-11-20	DEVICE AND METHOD FOR AUTOMATIC NETWORK DETECTION AND FORMATION
US15/832997	US10313489	US	2017-12-06	USB TO COAX BRIDGE
US16/430533	US20200162585	US	2019-06-04	USB TO COAX BRIDGE
US14/302152	US9871892	US	2014-06-11	USB TO COAX BRIDGE
US16/695234	US20200389185	US	2019-11-26	LDPC CODE MATRICES
CN201510073776A	CN104836635	CN	2015-02-11	LDPC CODE MATRIX
US15/598349	US10020820	US	2017-05-18	LDPC CODE MATRICES
US14/177707	US9264074	US	2014-02-11	LDPC CODE MATRICES
US15/001718	US9680503	US	2016-01-20	LDPC CODE MATRICES
US15/974783	US20180262210	US	2018-05-09	LDPC CODE MATRICES
KR20140001217U	KR20150003203	KR	2014-02-17	HIGH FREQUENCY DOCHIM THERAPY
US12/165528	US8427944	US	2008-06-30	BITLOADING APPLIED TO NETWORK MULTICAST MESSAGES
KR20107025432A	KR20110008221	KR	2009-05-15	BITLOADING APPLIED TO NETWORK MULTICAST MESSAGES
US2009044123W	WO2009143012	WO	2009-05-15	BITLOADING APPLIED TO NETWORK MULTICAST MESSAGES
EP09751241A	EP2279570	EP	2009-05-15	BITLOADING APPLIED TO NETWORK MULTICAST MESSAGES
IN5284CHN2012A	IN2012CN05284	IN	2012-06-18	METHOD AND APPARATUS FOR COMMUNICATING UNICAST PQOS DFID INFORMATION

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Application No.	Publication / Patent No.	Country	Filing Date	Title of Patent
IN1383MUN2009A	IN2009MN01383	IN	2009-07-22	CIRCUITS, SYSTEMS, AND METHODS FOR CONSTRUCTING A COMPOSITE SIGNAL
IN1382MUN2009A	IN2009MN01382	IN	2009-07-22	TRANSLATIONAL SWITCHING SYSTEM AND SIGNAL DISTRIBUTION SYSTEM EMPLOYING SAME
IN1381MUN2009A	IN2009MN01381	IN	2009-07-22	CIRCUITS, SYSTEMS, AND METHODS FOR FREQUENCY TRANSLATION AND SIGNAL DISTRIBUTION
IN950KON2011A	IN2011KN00950	IN	2011-03-03	DATA TRANSMISSION OVER A NETWORK WITH CHANNEL BONDING
IN1375KON2011A	IN2011KN01375	IN	2011-03-31	METHOD AND APPARATUS FOR PERFORMING CONSTELLATION SCRAMBLING IN A MULTIMEDIA HOME NETWORK
IN1343KON2011A	IN2011KN01343	IN	2011-03-29	SYSTEMS AND METHODS FOR PROBING WIRED COMMUNICATION CHANNELS
IN4317KON2010A	IN2010KN04317	IN	2010-11-16	CHANNEL STACKING SYSTEM AND METHOD OF OPERATION
IN4242KON2010A	IN2010KN04242	IN	2010-11-11	BITLOADING APPLIED TO NETWORK MULTICAST MESSAGES
IN5368CHN2011A	IN2011CN05368	IN	2011-07-25	RETRANSMISSION ADMISSION MECHANISM IN A MANAGED SHARED NETWORK WITH QUALITY OF SERVICE
IN2702KON2011A	IN2011KN02702	IN	2011-06-29	METHOD AND APPARATUS FOR BLOCK ACKNOWLEDGEMENT IN A COMMUNICATION NETWORK
IN1838MUN2011A	IN2011MN01838	IN	2011-09-06	A METHOD FOR QUICK MAP RECOVERY IN CASE OF ERROR IN MOCA

(b) all patents and patent applications (i) to which any of the Patents directly or indirectly claims priority, and/or (ii) for which any of the Patents directly or indirectly forms a basis for priority;



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(c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisionals, registrations of any item in any of the foregoing categories (a) and (b);

(d) all foreign patents, foreign patent applications, and foreign counterparts relating to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;

(e) all rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (d), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;

(f) causes of action (whether known or unknown or whether currently pending, filed, or otherwise) on account of any of the Patents and/or any item in any of the foregoing categories (b) through (e), including, without limitation, all causes of action and other enforcement rights for

- (1) damages,
- (2) injunctive relief, and
- (3) any other remedies of any kind

for past, current, and future infringement; and

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Assignor will, at the reasonable request of Assignee, do all things necessary, proper, or advisable, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining, perfecting, sustaining, and/or enforcing the Patent Rights.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

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EXECUTION VERSION

IN WITNESS WHEREOF this Assignment of Patent Rights is executed as of March 31, 2021.

ASSIGNOR:

MaxLinear Communications LLC

By:

Name: STEVEN LITCHFIELD

Title: CEO

(Signature MUST be attested)

ATTESTATION OF SIGNATURE PURSUANT TO 28 U.S.C. § 1746

The undersigned witnessed the signature of Steven Litchfield to the above Assignment of Patent Rights on behalf of MaxLinear Communications, LLC and makes the following statements:

1. I am over the age of 18 and competent to testify as to the facts in this Attestation block if called upon to do so.
2. Steven Litchfield is personally known to me (or proved to me on the basis of satisfactory evidence) and appeared before me on March 31, 2021 to execute the above Assignment of Patent Rights on behalf of MaxLinear Communications, LLC.
3. Steven Litchfield subscribed to the above Assignment of Patent Rights on behalf of MaxLinear Communications, LLC.

I declare under penalty of perjury under the laws of the United States of America that the statements made in the three (3) numbered paragraphs immediately above are true and correct.

EXECUTED on March 31, 2021 (date)

M. MacFarlane  
Print Name: MACFARLANE THABBA

[Signature Page of Assignment of Patent Rights.]

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PATENT

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